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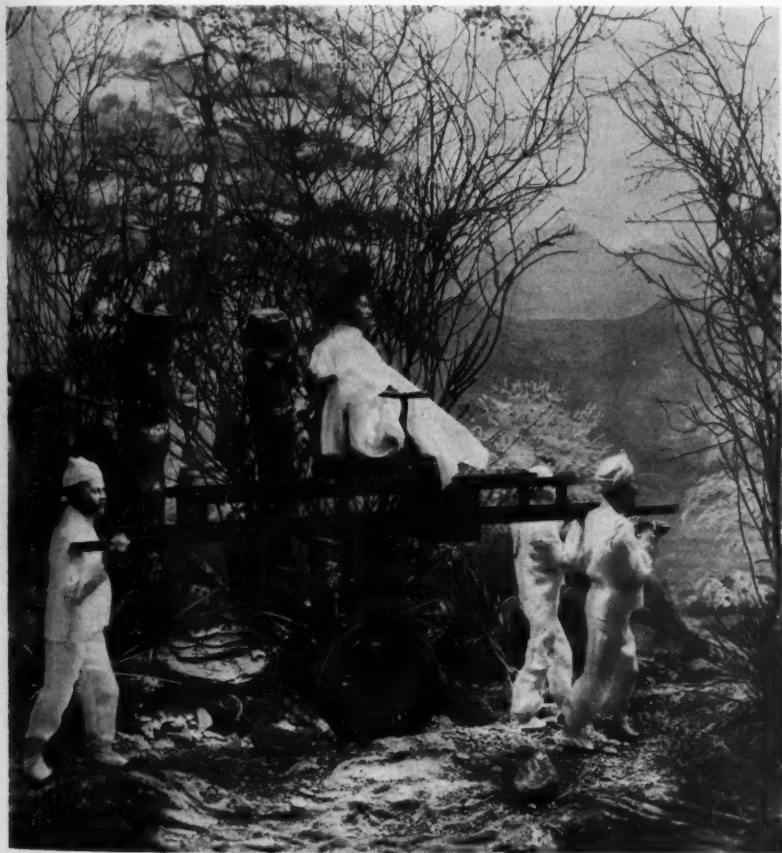
CARNEGIE MAGAZINE

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VOLUME XVIII PITTSBURGH, PA., NOVEMBER 1944 NUMBER 6



A GENTLEMAN OF KOREA

From a Diorama in the Museum's New Pacific Show

(See Page 163)

THE CARNEGIE MAGAZINE

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VOLUME XVIII NUMBER 6
NOVEMBER 1944

What stronger breastplate than a heart un-
tainted?

Thrice is he arm'd that hath his quarrel just;
And he but naked, though lock'd up in steel.
Whose conscience with injustice is corrupted.

—KING HENRY VI, Pt. II

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RECESSIONAL

God of our fathers, known of old—
Lord of our far-flung battle line—
Beneath whose awful hand we hold
Dominion over palm and pine—
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

The tumult and the shouting dies—
The Captains and the Kings depart—
Still stands Thine ancient sacrifice,
An humble and a contrite heart.
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

Far-called, our navies melt away—
On dune and headland sinks the fire—
Lo, all our pomp of yesterday
Is one with Nineveh and Tyre!
Judge of the Nations, spare us yet,
Lest we forget—lest we forget!

If, drunk with sight of power, we loose
Wild tongues that have not Thee in awe—
Such boasting as the Gentiles use,
Or lesser breeds without the Law—
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

For heathen heart that puts her trust
In reeking tube and iron shard—
All valiant dust that builds on dust,
And guarding, calls not Thee to guard,
For frantic boast and foolish word,
Thy Mercy on Thy People, Lord! Amen!
—RUDYARD KIPLING

TIME

Philosophers have explained space. They have not explained time. It is the inexplicable raw material of everything. With it, all is possible. Without it, nothing. The supply of time is truly a daily miracle, an affair genuinely astonishing when one examines it. You wake up in the morning and lo! your purse is magically filled with twenty-four hours of unmanufactured tissue of the universe of your life! It is yours. It is the most precious of possessions. A highly singular commodity, showered upon you in a manner as singular as the commodity itself! For remark! No one can take it from you. It is unstealable. And no one receives more or less than you receive. Talk about an ideal Democracy! In the realm of time there is no aristocracy of wealth, and no aristocracy of intellect. Genius is never rewarded by even an extra hour a day.

—ARNOLD BENNETT

SCHEDULE OF EXHIBITIONS

DEPARTMENT OF FINE ARTS

OCTOBER 12—DECEMBER 10

Painting in the United States, 1944.

OCTOBER 12—DECEMBER 31

Exhibition of Current American Prints.

THE PACIFIC SHOW

New Exhibit Staged by the Museum in the Gallery of Ornithology

BY ANDREY AVINOFF

Director, Carnegie Museum

ONE of the truly fascinating books of all time is a classic in biological literature, "The Malay Archipelago," by Alfred Wallace, whose name is closely linked with Darwin and the formulation of the theory of evolution. This enchanting volume carries the reader on an imaginative argosy to a strange land of beauty and wonders. I shall never forget the thrill of my boyhood days when I read—almost breathless with excitement—about the capture of the glorious velvet black and green bird-winged butterfly of Borneo. It bears the name of the white Rajah Brooke of Sarawak. The scope of the book gives but a slight slant, a mere fragmentary glimpse, of the vast and manifold Pacific world that has now become so vitally important and close to all of us. This far-flung theater of war, where the final battle will be fought before restoring a permanent world peace, is a matter of keen concern for all Americans, and it is a timely project for the Carnegie Museum to arrange a special exhibition on this part of the globe. It is, in fact, a major extension of the former and adjacent display of the South Seas, which has already been arranged in the light well



MR. VON FUEHRER PAINTING THE SIDE
PANELS OF THE LARGE MAP

on the first floor.

The Pacific show strives to give a synoptic picture of the geographical distribution of animal forms, variety of natural settings, diversity of human races, and their native customs and hand-crafts. No attempt at completeness could possibly be contemplated, but this selection of representative illustrations, and the maps enlivened by portrayals of human and animal inhabitants, together with life-like miniature

groups, will help the visitor to conceive a consecutive—or at least a comparative—picture of the nature and peoples of the Pacific and to learn a profusion of instructive facts.

The huge map, which measures about one hundred and eighty square feet and ranges from New Zealand to the Aleutians and from Australia to the mainland of Eastern Asia, conveys a picturesque idea of the main types of mammals, birds, reptiles, fish, insects, and marine invertebrates characteristic of particular localities. In point of fact, it is a map of pictorial zoogeography, identifying the many colorful indigenous forms with their home regions. A simultaneous presentation of geography and of native animals is helpful in linking them together in a purely visual



MRS. VON FUEHRER MAKING THE COSTUMED FIGURINES

association, and thus producing a lasting mental image. There are over a hundred different characteristic forms, all painted in their proper places, including the kangaroo of Australia, the walrus of the Arctic, the yak and the wild horse of Tibet, the orangutan of Borneo, and the Marco Polo sheep of the Pamirs. Not so long ago, when the giant lizard of Commodo Island—a veritable contemporary dragon of St. George fame—was first discovered, this sensational find captured the imagination of scientists and laymen alike. This huge reptile is also shown on the map in a recognizable likeness. The feathered world contributes a bright range of colors in the portrayals of birds of Paradise, pheasants, peacocks, cassowary, and cockatoos. All this array of colorful creatures scattered on the face of the Pacific world makes an open book of topographical natural history of unusually informative value.

The two panoramic panels flanking the large upright map are correspondingly impressive landscapes of Tibet and tropical jungles. A smaller map of the Burma region, showing the celebrated road to China, is adorned with some twenty painted figures of native

inhabitants, thus giving an idea of the varieties of types and attires.

An outstanding feature of the exhibit are the four dioramas depicting lifelike scenery in miniature. A tiger hunt in India, a harbor scene of Hong Kong, a Korean gentleman in the outskirts of Seoul, and a few Tibetan Lamas in a weird ceremonial dance are the themes of these diminutive installations. The Lamas, incidentally, were fashioned with utmost accuracy from authentic documents and are dressed in costumes

made of native fabrics. Interspersed in the dioramas are reproductions of a variety of plants and animal forms that add life and interest to the scenic beauty of the settings. As no effort was spared for an accurate, reliable, and artistic rendering of these scenes, it seems that such reduced representations on a restricted scale should commend themselves very favorably to Museum practice, solving the problem of economy of space and a lifelike rendering that would satisfy the most exacting zoologist, botanist, and ethnographer.

In view of the limited space allotted for this show, only very few actual mounted animals could be placed on display. Among such characteristic and showy specimens are the Indian black-buck surrounded by a few pheasants and the Himalayan giant partridge, the snow leopard of Kashmir, and the giant panda of South China, one of the rare animals that came recently into public vogue and which will be recognized and remembered by visitors. Display cases contain an assortment of butterflies and moths, showing their distribution on the Eastern Asiatic mainland and the islands of the Pacific. Brilliant and rare Philippine shells from

the George Clapp collection lend color to the show. A few plants of economic importance allude to the riches of natural resources in the vegetable realm of the Pacific.

Ethnography, native crafts, and folklore could only be broached in the exhibit. Elaborate mandarin coats and a few Hindu textiles inject a note of oriental luxury into the show. A robe that belonged to the ancestors of the Maharajah of Benares is associated with the history of the princely houses of the native states of India. It contributes a faint touch of the romantic glamor of that country and is a colorful counterpart of the specimens and vistas of jungle life reminiscent of Kipling lore. Several Tibetan banners of the seventeenth and eighteenth centuries represent in painting and embroidery the grotesque imagery of the Lamaistic cult. The original Buddhist doctrines have been mingled in the seventh century with the native Tibetan teachings of the Bon religion akin to Shamanism and the witchcraft of Central Asia. At a later date the earlier form of worship associated with the Red Lamas has been somewhat altered by the reform of Tsong-Khapa, who instituted the order of the Yellow Lamas. This deified teacher of later Lamaism is shown on some of the banners alongside the Bodhisattvas and Tantrik symbols.

It would be beyond the purpose of these paragraphs to give a complete description of the objects on view in this display, and, of course, for complete appreciation of the de-

tails an exhibition must be seen.

It would be fair, in conclusion, to pay a well-deserved compliment to the skill and artistic merits of those responsible for the preparation of this exhibition. Ottmar von Fuehrer conceived and painted the panels and constructed the ingenious dioramas. His achievements as an artist and landscape painter are well demonstrated in these fine show pieces. Under Mr. von Fuehrer's supervision, Miss Ruth Anne Lang painted the life forms and human figures on the maps; they are very creditable, true to life, and ornamental. Mrs. von Fuehrer fashioned with great deftness the miniature accessories and made the costumed figurines with the utmost accuracy for the miniature groups. The specimens of animals were expertly mounted by Harold J. Clement, and John Link lent his hand willingly in



MISS LANG PAINTING THE LIFE FORMS ON THE
LARGE UPRIGHT MAP

the arrangement of the installations. Their zealous and harmonious teamwork was responsible for the unity, co-ordination and artistic merits permeating the exhibition as a whole.

Visitors to the Carnegie Museum will have an excellent opportunity of learning much about the land where many of

their dear ones are now fighting a battle for victory over the forces of barbarism, which strive to enslave that part of our troubled world under the fallacious slogan of "Asiatic co-prosperity." The present display, beside the earlier one of the South Pacific, has much to say on a timely topic.

"HE WAS LOST AND IS FOUND"

Homer's Search for Guillaume

GUILLAUME LEROLLE, who represented the Department of Fine Arts of the Carnegie Institute in Europe, became a member of the staff in 1921, and is well known to many Pittsburghers, as he came here a number of times in connection with the Carnegie Internationals. He was in Paris, his home, at the time of the German invasion of France, was known to have left for southern France, to have returned to Paris, to have left again for the country, and had not been heard from since that time. Colonel Homer Saint-Gaudens, Director of Fine Arts, was looking forward all during his period of service to finding Guillaume Lerolle when the Allies invaded France. Colonel Saint-Gaudens went to England last December on the staff of Major General C. R. Moore, Chief of Engineers, European Theater of Operations, followed the Army into Normandy with the invasion, and—in so far as permitted by his military duties—set out to find Guillaume. Here is the story of his search as related in a letter:

"I am tired tonight, and we are moving again in the morning. We are always moving these days. But I must let you know that I have seen Guillaume.

"He was not in his flat in his big town, but the concierge gave me his address in another large town, sixty miles south. So when opportunity offered I tried that.

"By way of an old lady I picked up,

a Frenchman with a glass of rum, and—as a guide—the Maire of the faubourg adjacent to that in which Guillaume lives, we found him.

"He has a charming house and grounds, a cow, a pig, some poultry, and a garden. He looks very thin and frail, but quite well, Suzanne [Mrs. Lerolle] was there and in good health. I did not see Aline [Lerolle's daughter]. Her husband is still a prisoner. Vincent [Lerolle's son] is elsewhere, and married. Aline's youngsters were about with other children and in-laws.

"The Americans have chased the Germans out of the town he has moved into, to the joy of all. He and Aline witnessed the excitement. The town has not been too badly damaged. Funny, but I went right through that town when it was said to be in German hands and never saw a German—or they me, thank goodness!

"I am quartered pro tem in a swank hotel in a French cathedral town. The Government has taken it over. Of course there is no electricity, no hot water, no elevator, four flights. But it is a lovely room, and clean.

"Everything in this land is either dilapidated or worn out; but all the basic needs are at hand, and once they can get going, with their communication system working, the country will come back in short order.

"I am glad to stop traveling for a day or so. After a two-hundred-and-

fifty-mile jeep ride, which an officer remarked to me 'would be tiring for a young man,' he added, 'Have you got your jeep sand-bagged?' 'No,' says I. 'It would ride easier,' says he—and it would.

"Then he saw the jeep, with all of Bibo's [the chauffeur] and my baggage, and extra gasoline tins.

" 'You don't need sandbags!' says he.

" 'I know it. It's my happy home, and it weighs a lot.' "

Here is another letter from Colonel Saint-Gaudens which tells of further adventures at the front:

"I'm just back from the front. I thought I'd take a malign delight in walking through a busted, evacuated German town. I didn't. I felt just as sad as I had with French towns. It was still mostly dead. Just an occasional soldier poking around—or now and then a machine gun chatter down the road beyond the antitank outfit. Unmilked goats and cows looked pathetically over the fence. One house had had a sporting owner. Little mounted goat-heads lined the wall, and around the sideboard were a flock of stuffed owls and pheasants. His green yodler's hat lay on the floor.



COL. SAINT-GAUDENS AT A CAMOUFLAGED GUN EMPLACEMENT IN GERMANY



COL. SAINT-GAUDENS WITH SUZANNE AND GUILLAUME LEROLLE

"We went into the church to have a look from the tower. It was locked and we couldn't go up. So we did our best from a window back of the altar. A German shell had gone through the roof awhile before and spattered plaster and lathing over the crucifix. Otherwise the place was spotlessly clean. We stood there in our tin hats, with shells in the chambers of our weapons, and looked at the modern frescoes of the Christ story. When we came out and walked back to the car I could not find my knitted cap that goes under my helmet liner. My jeep driver was worried about losing it until someone found it on my head. You know—grandpa's spectacles.

"All sorts of things eventuate at the front. A Luxembourg lassie tending cows stopped reading a book to watch some field artillery fire over her livestock. She had a white dog who made friends with the section crew. I could not bear it, so I had a soldier photograph the three of us by the trails of the piece. I hope it comes out.

" 'Parlez-vous français?' says I to her.

" 'Un peu,' she admitted.

" 'Sprechen Sie Deutsch?' I inquired.

" 'Jawohl,' she smiled with enthusiasm.

"There is nothing like war."

NOBEL AWARD IN PHYSICS

Dr. Otto Stern of Carnegie Tech is First Prize Winner in Pittsburgh

BY MAX E. HANNUM

Manager, Bureau of News and Publications, Carnegie Institute of Technology

THE distinction of being the first Pittsburgher ever to be awarded a Nobel Prize has come to Dr. Otto Stern, Research Professor of Physics at the Carnegie Institute of Technology. On November 9 announcement was made in Stockholm, Sweden, that Dr. Stern had won the delayed 1943 Award in Physics. Thus, overnight, this quiet, reserved gentleman, whose fame was widespread in scientific circles, but who was but little known by the general public—even in Pittsburgh, his adopted city—became world renowned. There were, in fact, many people even on the Carnegie Tech campus who had little or no contact with Dr. Stern and who never realized what important work was being accomplished from day to day in his Laboratory of Molecular Physics.

Dr. Stern does not teach at Carnegie Tech in the usual sense of the word, although he has given graduate instruction to a great extent and has been in charge of much of the work that led to the dissertations of men who were studying for the doctor's degree. In his seminars he meets advanced students; and his colloquia—where students of physics keep abreast of the latest developments in their field—have attracted many in-

dustrial physicists. For a year he served as President of the Pittsburgh Physical Society.

Born in Sohrau, Germany, in 1888, Dr. Stern became affiliated with the Carnegie Institute of Technology in 1933. In 1912 he received the degree of Ph.D. at Breslau, and in 1930 that of LL.D. at the University of California, where he was Visiting Professor in 1929-30. He studied and taught in Zurich, Frankfurt, Rostock, and Hamburg, having been at Hamburg for the ten years immediately preceding his association with Carnegie Tech. Prominent physicists from all over the world went to work with him at the Institute of Physical Chemistry of Hamburg University, and it was there that he first met Dr. I. I. Rabi, now at Columbia

University, who received the Nobel Award in Physics for 1944, and whose investigations have also been in the field of molecular rays and the magnetic moments of the atoms.

It was the late Dr. Thomas S. Baker, former President of Carnegie Tech, who persuaded Dr. Stern to come to America and to Tech as Research Professor. Contrary to reports that he was forced to flee Germany, he formally re-



DR. OTTO STERN

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signed his post in protest against the Nazi regime, took a sleeper to Copenhagen, and embarked for America as any ordinary traveler would. He arrived in this country in October 1933, and shortly thereafter resumed the investigations that were to bring him the Nobel Prize a decade later. In 1934 the Buhl Foundation made a grant of \$25,000 to establish a laboratory for the continuation of Dr. Stern's research, and there he and Dr. I. Estermann, his long-time associate, concentrated their efforts. He was widely known in scientific circles at that time for the "Stern-Gerlach" effect, which presents a direct proof of the so-called space quantization.

Dr. Stern is a personal friend and admirer of Albert Einstein. They first met at Prague, where Stern studied under Einstein. The two great scientists have spent much time together at Princeton. Indicative of Stern's great regard for his friend is the fact that the only picture in his living room is one of the famous authority on relativity.

The Nobel prize winner describes his work in these words:

"The method of molecular rays consists in preparing a stream of molecules by means of a system of fine slits. All molecules travel in the same direction in a highly evacuated apparatus. Experiments with these molecular rays had two different purposes: First, they contributed to the solution of fundamental questions. Three examples: First, direct experimental proof for the space quantization of atoms by splitting a molecular ray of silver atoms in two beams in a magnetic field. Second, experimental proof of de Broglie's theory that moving particles show wave properties by diffracting a molecular ray of helium or hydrogen molecules at a crystal lattice. Third, the measurement of the magnetic moment of the proton by magnetic deflection of a beam of hydrogen molecules. The result, that this magnetic moment was found to be about two and one-half times the value expected from the theory, is fundamen-

tally important because of the character of the proton as an elementary particle. Furthermore, the molecular ray method is much more sensitive than any other known method for the determination of magnetic moments of atoms or molecules."

Possessed of finely shaped, delicate, artistic hands, Dr. Stern is considered by many scientists to be not only one of the greatest experimental physicists, but also one of the greatest theoretical physicists in the world.

He has been a citizen of the United States since 1939 and in the past several years has devoted much of his time to war work for the government.

WINTER ACTIVITIES FOR CHILDREN

WINTER activities for children were resumed for the coming year in the Carnegie Museum on Saturday, November 4. At 10 o'clock a meeting of the Junior Naturalists Club was held, at which registration for fall and winter participation took place. Membership in this group is open to any boy or girl between the ages of six and sixteen who has a special interest in natural history. Meetings of the Junior Naturalists will take place all year until May 12, 1945, when the climax of the program will be reached with the annual Nature Contest.

Free motion pictures for children were begun on the afternoon of November 4, and will continue to be shown each Saturday through March 31 at 2:15 P.M. Every child who wishes to come is welcome at these programs.

The Carnegie Museum Nature Club also held its first meeting of the season on Saturday, November 4, at 10 o'clock in the morning. Membership in this group is restricted to those boys and girls from the seventh and eighth grades of the Pittsburgh Public Schools who have been selected by their science teachers for special aptitudes in natural history study.

REFLECTIONS ON AMERICAN LIFE IN BLACK AND WHITE

Contemporary Prints on the Balcony of Sculpture Hall until December 31

BY VIRGINIA LEWIS

Department of Fine Arts, University of Pittsburgh



On the Balcony of the Sculpture Hall of the Carnegie Institute, in the reflected glow of "Painting in the United States, 1944," hang with monochromatic dignity one hundred and thirteen of America's most recently executed works in black and white. This exhibition of prints has been selected from the second Pennell Print Competition, held at the Library of Congress from May to July of this year. Joseph and Elizabeth Robins Pennell have sustained the interest in prints, which they aroused in America during their lifetime, by their bequest to the United States for this competition, open to any American artist wishing to submit his work. Through their vision and generosity and the courtesy of the Library of Congress this exhibition in Pittsburgh has been made possible.

It reflects an American art which holds its own with any other contemporary expression in skill of technique, in dignity and humor, and in sensitive response to both the beauty and the ugliness of our age. In a variety of subject one sees a frank statement of present-day issues, a restless urge to escape into the realm of fantasy and unreality, and a nostalgic tendency to cry on the shoulder of the period just gone by. There is also a healthy turning to the commonplace and simple, its representation justified by its very existence. There is less of the subconscious and

psychological activities of man expressed in distorted and grotesque form than one finds, for example, in painting. But this is only natural, since the print has ever been an art of the people, and it is reasonable that it should follow in more or less tolerated visual expression the prevailing philosophies of the day.

The vitality of what is being said is no less evident than the manner of its expression. It is always a matter of interest in an exhibition of prints to consider the problems of technique and the various processes employed in their creation. A print is an impression on paper from a plate or block or stone on which the artist has drawn a design. Every impression of that design is an original work of art. In this connection confusion often arises as to the term original and reproductive. An original etching, for example, is one in which the artist has conceived the design himself, as opposed to the reproductive etching in which the artist has copied the design of another. This distinction is not so important today, since our present mechanical methods of reproduction have almost eliminated that class of prints which has previously existed with the same function as our half tones, rotogravure, and collotypes. Today a lithograph, an etching, or a wood engraving exists as an original work of art created by the artist for the single purpose of its esthetic value. Having been designed for popular consumption, the print was meant to be multiplied. One observes in this exhibition many prints limited in the number of impressions printed. This establishment of an artificial rarity by limiting the editions seems inconsis-

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ent with the very nature of the print.

Prints may be divided into three general groups: relief, in which the design is printed from that part of the block left standing above the surface; intaglio, where the design has been cut into the block or plate and hence below its printing surface; planographic, in which the design is printed from the surface of the plate or stone. These in turn may be broken down into woodcut, linoleum cut, and wood engraving; etching, aquatint, line engraving, and drypoint; lithography and silk screen. Each of these is based upon the fundamental printing principle of its main group and each has its own special esthetic value. The present exhibition includes a refreshing variety of media both separately and in combination. It is important to remember, however, that technical skill alone does not make a print. It is as significant for its pictorial and emotional content, its design and composition, as for the process by which it is created. On the other hand, the process and the understanding and

skill with which it is handled determine the successful conviction of the print. It is this relationship of technique to mood and subject which I should like to consider.

The woodcut is the oldest technique represented here, and the most simple in principle. Its design is realized by means of the black line on a white background. While complete freedom of expression in this medium is somewhat limited by the rigidity of the line, considerable scope in feeling may be covered. Norman Kent, in a skillful handling of this medium, conveys a sense of depressing wetness to the thin wooden building he calls "Queer House." In Fiske Boyd's "Hog Scraping," clean sharp lines reveal the anatomy of the human beings, as well as that of the animals, with a sameness which leaves little distinction between the two and serves to emphasize the repellant and unpleasant occupation depicted. An especially appropriate use is made of the unbending quality of the woodcut in "The War. Plate I. Chaos,"



LONG ISLAND FARM—AN ETCHING BY STEPHEN CSOKA

by Louis Heckenbleikner, where no attempt is made at the realism of agony, but where the spirit of suffering is represented rather by the conventionalized attitudes of the figures. Simple line drawing forcefully portrays the irony of the subject in the "Blind Color-Grinders" by Helen West Heller. The bitter Mongolian-like figures form

a strange contrast to the delicate East Indian pattern of the background. Michael J. Gallagher's "Wood Gatherer" is an interesting study in light, where a fine sense of clarity is obtained. This is well organized and forceful in the complete subordination of the central theme.

The linoleum cut, which may be thought of in the same category as the wood block, though lacking its crispness, has taken on a new importance in refinement and delicacy of execution. The sharp lines of Betty Tallackson's "Washington Horse" have almost the virility of a woodcut. It becomes a major medium in the field of prints in Julia Bloch's "Retreat," where it demands the simplicity of the plain flat areas of the faces and the economy of line which establishes in this print a definite mood of relaxation and enervated contentment in the old men. It has something of the spirit of Toulouse-Lautrec. The extent to which one can go in the medium in delicacy and whimsy is admirably demonstrated in Adrian Troy's "Ruprestrian Africa." These motives, as the title suggests, derive from primitive cave painting. The tiny figures make a pleasing pattern. Miniature bisons, giraffes, and camels are bits of color to please one's fancy and delight the eye. Woldemar Neufeld's



IN THE HILL COUNTRY—WOOD ENGRAVING

By ASA CHEFFETZ

"An Ohio Farm," a quiet composition of a peaceful country scene, is almost a tour-de-force of this medium in color, with clarity and definition. Sister Mary Francis Irvin's "The Reading Lesson" has the quality of demureness. It would make excellent illustration for a primer.

A variation of the woodcut is the wood engraving. Here the principle of printing in relief is the same, but the design is achieved through the white line against a black background. It is perhaps more suited to the precious and sophisticated than is the stroke of the woodcut. One of the most outstanding wood engravings in the exhibition is Letterio Calapai's "The Pianist." The artist has here succeeded in creating in a well-organized composition the mood of tense silence so often produced by a musical performance. The view into the lighted court beyond accentuates the concentration within. Fritz Eichenberg once more proves his worth in the excellently executed illustration, "Tales of Poe No. 2." Here he has injected just enough of his own creative interpretation to allow the morbid spirit of the author to dominate. In "Forgotten Things," Grace A. Albee has, with her expert touch, transferred another block of wood and a piece of paper into a frosty bit of sterling silver. Indeed, it has the metallic quality produced in

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the early fifteenth-century "schrott-blätter," a relief print from metal plates worked with silversmith's tools. One may tire of the subject of old wagons under trees, but one never ceases to marvel at her exquisite technical skill and her well-poised compositions. More dramatic in approach is Todros Geller's "Song of Songs," where a minimum of white line against the dark background emphasizes the sensuous exaltation of the Song of Solomon. Repetition of the chariot motif is a subtly convincing pictorial device. In Asa Cheffetz' exquisite "In the Hill Country" one sees this medium exercised to its fullest capacity. With remarkable control of values and subtle tone effects he brings out the charm of the Vermont countryside in the clear late twilight. In a pleasing arrangement of the attributes of femininity Leo Meissner, in "Assembly Line," symbolizes a phase of war peculiar to our times. The precision of the wood engraving is especially suited to the realistic and at the same time isolated rendering of the hat, gloves, lipstick, and handbag.

In the field of intaglio prints there are

many examples of distinction and interest. Again they vary in mood and subject, and a wide range of spirit is portrayed by the individual medium. The traditional and modern vie with each other, sometimes separately, sometimes harmoniously within a single print. Martin Petersen's "A Summer Shower, Central Park" is an excellent example of this. Its subject is established; the impressionistic mingling of rain, trees, and people give it movement and vitality. John Costigan's etching, "Fodder," a homely scene on a farm, somewhat sentimental in spirit, has been made strong by a modern treatment of dramatic lighting. It shows the hand of a man deeply attached to the soil. "The Road is Rough," by Reynold H. Weidenaar, continues the tradition of homely genre so typical of Dutch and Flemish artists in the seventeenth century. The tumbled composition is crowded with delightful bits of architectural detail and mountainous landscapes. Carl M. Schultheiss' "In the Evening" has the powerful emotion and monumentality worthy of a master. Luigi Lucioni uses the same medium to experiment with shadows

in a technically skillful photographic manner. Stephen Csoka's "Long Island Farm" has the delicacy and spatial conception of Rembrandt's "Goldweighers Field." It may be of interest to compare the precision and minuteness of this beautiful etching with the impressionistic treatment of the artist's "Preview in the Gallery" in the adjoining exhibition of

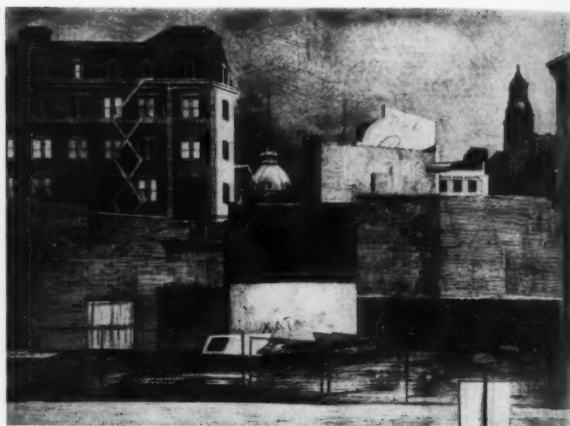


TRAPNET FISHING ON THE GREAT LAKES—LITHOGRAPH

BY ROBERT VON NEUMANN

paintings. Daniel Garber's "Illyria" rings an arcadian note and recalls Seymour Haden with its idyllic version of today's war-torn Balkan coast. A more formal style of etching in the concept of a former generation is "New York—Old and New," by Ernest D. Roth. Sue Fuller, in a modern psychological turn, has used the medium effectively, if somewhat enigmatically, in "Cacophony." Perhaps she is depicting the confusion of the turn of the century, the discord of today emerging from the lace valentine eclecticism of thirty years ago.

The aquatint which Goya used so effectively in the nineteenth century in his socially conscious *Caprices* and *Disasters of the War* is becoming increasingly popular among artists today. Karl Schrag uses it in the present exhibition to comment on war in 1944. The clarity and evenness of tone, the unassuming background contrasted with the sharpness and drama of the white lines, emphasize the significance of his subject. The gradation and subtleties of tone, its peculiar quality of translucency, make it especially suitable for definite atmospheric effects. Doel Reed, in "River Country," shows a pleasing pattern of dark trees silhouetted against a grey washlike effect attaining a real sense of the melancholy of evening in a lonely river country. With perhaps more interest from the point of view of subject matter is Gene Kloss' "Turtle Dance at Sunrise." This is an impressive scene of a religious ceremony against a dramatically lighted background of mountains and adobe houses built up in plastic recession. In a totally different spirit is Edgar Imler's soft-ground etch-



12TH STREET WALLS—DRYPOINT BY ARMIN LANDECK

ing and aquatint, "Going to Town." A quality of eeriness is achieved here by the lighted lantern, the long drops of rain, the little Gothic church with its false façade. In spite of its realistic humor one thinks intuitively of Ichabod Crane and the headless horseman or of a night for witches and rattling chains. There is an indefinable but unmistakable pleasure to be derived from the texture and upright composition of Will Barnett's wistfully appealing aquatint and etching, "The Story." Elsie H. Irwin's "The Studio" has the same soft impression and diffusion of tone that one sees in Eric Isenburger's studio in the painting exhibition. The last days of Don Quixote and Sancho Panza are excellently portrayed by William Sharp in the aquatint, "Homewards." The etched line serves to emphasize the drawing. A decorative and toylike effect may be observed in George Jo Mess' "The Goat Farm."

Although the tempo of life in the twentieth century seems somewhat opposed to the painstaking character of line engraving, there are a few artists today working in this more formal and studied medium. An interesting one in the exhibit is D. Philip Platt's portrayal of the "Anopheles," an impressive drawing of the intricacies of the

malaria mosquito. The background of regular crosshatching, with enough variation in tone to keep it from being mechanical, suggests the weaving of a textile. Similar in spirit is Stanley William Hayter's "Principle of Flight." There is more interest here, however, in the abstract concepts of movement and space. The soft-ground etching background through tonal gradations helps to convey the sense of controlled instability. The

clean uncompromising line of the copper engraving and burrless drypoint seems especially suitable for Lawrence Kupferman's abstraction, "Pattern of the City," a non-objective rendering completely removed from his familiar Victoriana.

The drypoint is closely related to the line engraving in technique. The design is drawn with a needle on the bare plate, the stroke controlled by the pressure exerted. A burr of metal thrown up on either side as the needle cuts on the metal plate produces in printing a velvety effect which gives richness to the design. It is especially suitable for trees and foliage, as in the drooping moss and marshy land of Alfred Hutty's "Hiatus Low Country." Louise Boyer has used the drypoint to depict the atmosphere of Pittsburgh in a scene of the present South Side. Sometimes the burr is scraped off the plate before the printing, and then a delicate sensitive line results. Helen King Boyer reveals the possibilities of its miniature effects in her portrait of an army hospital. Armin Landeck's "12th Street Walls"

shows an aristocratic elegance of technique and at the same time a certain warmth in his feeling for surfaces and subtle relationship of values.

The medium of lithography is the most popular among printmakers today. The ease and speed with which one can work in it appeals to the artist of our time. It can take on the esthetic attributes of any of the media and is possible for almost any subject and any

mood. At the whim of the artist it can become a hard or soft crayon drawing, a pen and ink wash, or a water color.

In Robert Philipp's "By the Lake," the soft-crayon effect depicts the youth and sweetness of the couple at the table. A harder crayon stroke has been used to portray the shallow characters in "Card Players" by Norah Hamilton. In Max Kahn's "In the Morning I Go to Work," a combination of

hard and soft crayon helps to give a sense of quiet desolation. The whole is an interesting contradiction of definite pattern formed by triangles of gables and blocks of houses, and the blurred and uncertain shapes emerging from the sleeping town into the half-light of the early morning. Again a definite mood is created in Ernest Fiene's "Winter Sun." He successfully portrays in a strong composition the cold reticence of a scene dominated by a muted sun. Like his painting, it has a linear quality sharp and clear, at the same time revealing the artist's understanding of the nature of the lithograph.

Dong Kingman's "Passing By" has



ANOPHELES—LINE ENGRAVING
By D. PHILIP PLATT

all the character of the pen and ink wash. Its sketchiness accentuates the sensation of the speed of the passing train. This same feeling for wash is to be noted in Leonard Pytlak's "Propagating House," in which one feels the glass walls and moist atmosphere of the greenhouse.

The facility of the medium lends itself to the mannered style of Wanda Gág's "Barns," in which she ignores the laws of gravity and seems to have strung each part of the composition on a cord and pulled it tight. An imaginative fairyland feeling is gained here—a kind of Hansel and Gretel illustration, with the wall made of crystal rock candy and the buildings of gingerbread. "My First Day at School," by Howard Baer, reveals a more personal and intimate side of the lithograph. Wistful and appealing, it brings back for us some of the terrors of our childhood—actual and vivid. A light crayon stroke has been applied to the foibles of our elders with biting humor in Caroline Durieux' "Exit." In the same vein Peggy Bacon has little mercy for the antique hunter. A sharper technique in previous times has emphasized the caustic in her comment. In this lithograph of the "Antique Shop" the crayon seems to have somewhat softened the satire.

But the lithograph can also express great strength, monumentality, and emotional power. The sheer physical energy of John Steuart Curry's "Stallion and Jack Fighting" almost bursts beyond the confines of the print. A spiritual strength is revealed in Benton Spruance's impressive "Resurrection," where the youthful Christ seems to symbolize the hope of a new age, reborn of the chaos and destruction of war. The elemental power of the earth is stored in the figure bending over the ground in Georges Schreiber's "The Earth." It recalls in its fundamental relationship of man to the land the toilers of Millet, divested, however, of any sentimentality. Through the scratchy manner employed in Ethel V.

Ashton's "Welder," the spark and force of the blow torch is made vivid. Robert von Neumann realizes the fullest possibilities of the medium in "Trapnet Fishing on the Great Lakes." One feels the tremendous pulling-in of the nets. The technical achievement is superb. The sky sparkles, the greys are definite and strong, and the blacks are deep and rich.

A more recently developed medium, although an old one in principle, is the silk screen. This is a stencil process basically wherein the design is drawn on the silk mesh pulled taut in a frame. The silk is covered with a resisting substance except for the part which is to be printed. Liquid color is poured into the frame and spread over the silk with a squeegee and transferred to the paper through the meshes of the fabric which has not been stopped out. The nature of this process prohibits to a certain extent modelling or great refinement and delicacy of treatment. It is especially effective for decorative arrangement of flat areas of color. Robert Gwathmey works exceptionally well in the silk screen, or serigraph. With the simple force of subtle color, he makes a stirring appeal to the emotions in his "Share-Cropper." More decorative in spirit is Guy Maccoy's "It is Evening," delightful in color, and with a slight oriental flavor in the jagged line of a landscape. Morris Blackburn shows an excellent relationship of mood and subject to the method of expression in "Figure in Space."

The Carnegie Institute is to be commended in localizing a nation-wide interest in prints and by such exhibitions so consistently providing Pittsburgh with the opportunities for studying the best and most recent work in the country. Furthermore, it encourages this interest in a very tangible way by the regular purchase of prints from this exhibition and elsewhere, through the Martin Leisser Fund, for its permanent collection, where they may always be available for the use of the interested student.



THE GARDEN OF GOLD



YEAR by year recognition of the Carnegie Institute of Technology by large industrial corporations of the Pittsburgh area increases, due to their realization that the graduates of Carnegie Tech are well fitted to take and hold responsible positions in their organizations. It was undoubtedly appreciation and recognition of the contribution made by Carnegie Tech which led the directors of the Blaw-Knox Company to pledge \$40,000 for the general Endowment Fund. This handsome donation will be matched by the Buhl Foundation, and in turn this \$80,000 will draw \$160,000 from the Carnegie Corporation of New York in 1946.

Very shortly after notice of the above gift had been received, word came that the Jones & Laughlin Steel Corporation promised to give \$100,000 to the Carnegie Tech Endowment Fund for a purpose to be designated at a later date. This sum likewise will be matched by the Buhl Foundation, and in turn that total will be doubled by the Carnegie Corporation in 1946. In other words, the \$100,000 becomes \$200,000 and then draws \$400,000, totaling \$600,000, and this large sum will be used for the education and training of young men and women who will eventually take their places in this highly industrialized area, where skilled men are of such value.

At a dinner in New York on November 6 a gift of \$20,000 to endow a new scholarship was presented by the Mergenthaler Linotype Company to the Carnegie Institute of Technology Endowment Fund. The dinner was attended by President Robert E. Doherty, who accepted the gift for Tech, and by Dr. Webster N. Jones, Director of the College of Engineering, and by Professor Glen U. Cleeton, Head of the Department of Printing, through whose good offices the gift was received. This

sum is in honor of the fiftieth year of Joseph T. Mackey's employment by the Mergenthaler Linotype Company, of which he is the president, and will set up a scholarship to be known as The Joseph T. Mackey Scholarship in Printing. Mr. Mackey has sustained a lifelong interest in graphic arts education. For this reason, and because Carnegie Tech is the only school in the world that grants a degree in printing, and for their unique record in the training of young men to assume important positions in this industry, the board of directors of the Company felt that Tech should be the recipient of their gift.

The Department of Printing at Tech was established in 1913, with Harry L. Gage as its first head. Mr. Gage is now a vice president of the Mergenthaler Linotype Company.

It is a pleasure to acknowledge here also a gift from the Universal-Cyclops Steel Corporation in the amount of \$10,000, which is a contribution to the general endowment fund of the 1946 Fund.

The H. H. Robertson Company has also made a contribution to the general endowment of Carnegie Tech in the sum of \$1,000.

Also, \$100 has been gratefully received from the Heppenstall Company for the 1946 Endowment Fund.

In this list of gifts, the alumni must not be forgotten. They are ever-present in their zeal. This month one of them, R. J. Wean, from the Class of 1917, has sent in \$250 for the Management Engineering Research Fund. This fund was set up by Professor Emeritus Charles C. Leeds and was described in some detail in the October *CARNEGIE MAGAZINE*. Capt. Myron W. Gehr has also contributed \$25 to this same fund.

Other gifts that have been made through the Alumni Federation this month include:

THE CARNEGIE MAGAZINE

\$20 from Anthony J. Kerin for the Class of 1917 Engineering Scholarship Fund.

\$50 from Martin F. Murphy, Jr., for the Clifford B. Connelley Memorial Scholarship Fund. This fund was set up by Mr. Murphy and he has been a constant and liberal contributor to it.

\$8 for the Fine Arts Aid Fund from Mrs. Louise C. Blair, Charlotte Smith, and Mrs. Eugenia Tolmachoff.

\$5 from Mrs. E. Lester Fix for the Graham Memorial Scholarship Fund.

\$20 from Capt. John M. Groves for the Hower Memorial Fund.

\$5 from Harriet Stone for the Parry Memorial Fund.

\$10 from Lt. Ruth E. Pontius for the John H. Leete Memorial Scholarship Fund.

And \$147.50 for the general endowment fund from R. Earl Boyer, Lt. Robert K. Ducey, Mrs. H. L. Goldberg, Mrs. Howard Hartner, Mrs. Gertrude Morgan Hayes, Virginia P. Jennings, Chester H. Lang, Elaine Levin, Lt. S. Howard Macy, W. C. Masters, W. A. McGill, Capt. William A. Shearer, Jr., and the Youngstown Women's Clan.

Adding all these sums to the totals acknowledged heretofore in the Garden of Gold, makes a total for the 1946 Endowment Fund of the Carnegie Institute of Technology, as of October 31, 1944, of \$1,968,952.89 received, and \$669,333 pledged, making a grand total of \$2,638,285.89.

VOTING FOR POPULAR PRIZE

AGAIN this year the Fine Arts Committee has authorized the award known as the Popular Prize for the Founder's Day Exhibition—"Painting in the United States, 1944." The prize, carrying with it a money award of \$200, will be determined by vote of gallery visitors, so that they may have an opportunity to express their opinions about the canvases in the exhibition. They are thus encouraged to study the

individual paintings and to express their preferences in accordance with their personal standards of criticism.

Since all the artists represented in the exhibition are living, all paintings are eligible for the prize, which will go to the painter receiving the largest number of votes. Voting will be by signed ballot, and will take place from Sunday, November 19, to Sunday, December 3, inclusive. One week will remain thereafter in which visitors may view the exhibition and the Popular Prize Painting.

The Popular Prize was instituted twenty years ago, with the 1924 International Exhibition, and has gone to an American artist on all but one occasion. Except for the five seascapes which brought the award to the late Frederick J. Waugh in as many successive years, the subject of the Popular Prize Painting was either a portrait or a composition in which figures were the chief interest. The living painters who have received the award are Malcolm Parcell (1924 and 1925), Leopold Seyffert (1926 and 1930), James Chapin (1929), Daniel Garber (1933), Luigi Lucioni (1939), and Clarence H. Carter (1943). Each of them appears in the current exhibition.

MONTANA EXPEDITION

J. KENNETH DOUTT, Curator of the Section of Mammalogy, and J. LeRoy Kay, Curator of the Section of Vertebrate Paleontology, left the Carnegie Museum on November 1 on an expedition to Montana. The primary purpose of the trip is to collect some of the larger game mammals that are not ordinarily acquired in general collecting. At this time of year big game is in its best coat—really in its prime—and any small specimens that may be collected along with the big game will also be interesting because of winter peltage. As additions to the Carnegie Museum collection of mammals, these specimens will have a high place.

CIVILIAN ENGINEERING— A LOOK TOWARD G. I. HORIZONS

By F. T. MAVIS

Head, Department of Civil Engineering, Carnegie Institute of Technology



It is nearly two hundred years since civil engineering emerged under the leadership of John Smeaton as an offshoot of military engineering. Smeaton set up in business on his own account in 1750 and was ap-

parently the first man to use the title Civil Engineer. Although he is most often mentioned as the rebuilder of the Eddystone Lighthouse, he pioneered in constructing many civil engineering works and in planning others "though capital was not always available to carry out his schemes." He was inventive—"an incessant experimenter"—and his interests included music, the arts, and astronomical studies and observations, as well as mechanical devices, planning, and construction.

Now, in preparation for the year "1944 plus X," countless plans are being laid which will affect the emergence of untold thousands of men and women from the pursuits of war to service in the civilian engineering fraternity. This emergence from military to civilian engineering pursuits in that year and its impact on a nation tired by the exertions of war cannot be foretold. It is imperative that flexible plans be made in the hope that capital may be available to carry out the essentials of a sound program. Unlike Smeaton, however, those who would aid men and women in making a transition from military to civilian engineering pursuits can ill afford to devote time and effort to "astronomical studies" or to

plans of astronomical proportions.

What are the variables that enter into the orderly emergence from military to civilian engineering pursuits? At the risk of oversimplification, we may place them in the following categories: First, in regard to the man or woman who is now in war service: what are his aptitudes and ambitions, training, preparation, and civilian-service objectives; and what lines of civilian engineering service are likely to be open to him in the years following "1944 plus X"? Second, regarding the process of emergence from military to civilian engineering pursuits: how can the service man or woman best prepare himself for admission to and advancement in his chosen field of service?

To be sure, any brief discussion of such an important problem invites criticism of presumptuousness at one extreme and triteness at the other. Let us narrow the discussion to a consideration of the problems of service men and women who may wish to emerge from military service into the fraternity or the profession of civil engineering.

The veteran may have entered the service after he had established himself at some level of professional practice, or immediately after graduation from a college or university with a degree in engineering, or while he was pursuing a program of training en route to graduation in engineering, or after he had completed his secondary or high-school education, but before he entered college to study engineering. His experience in military service may have been in technical engineering or executive lines, or it may not. Further complicating the problem of conversion from wartime to peacetime pursuits, he may have been inducted into military

service at any time between the beginning and end of a training interval—be it semester, term, or year.

Men who entered military service from established engineering practices will have first priority on their old jobs, and it is likely that most of these men will avail themselves of that right. Many will wish additional training, or refresher training, evenings or part time, and for veterans near industrial and metropolitan centers adequate opportunities will be afforded through evening schools and extension programs.

Men who entered the Armed Forces upon completion of a normal undergraduate program will doubtless find a period of refresher training to their advantage, and men with superior capacity may be well advised to supplement that refresher training by work leading toward a postgraduate degree. The veteran graduate—or near-graduate—who returns to college in mid-semester would pursue a program differing in detail from one he might pursue if he entered college at the beginning of a semester. A profitable program of refresher work and responsible scholarship, however, can usually be arranged for him whenever college is in session.

The veteran whose work was interrupted during his course of study might present some complications growing out of formal educational training in service—such as training in A.S.T.P. or N.C.T.P.—or out of semiformal training under the auspices of U. S. Armed Forces Institute and college extension services. He may also have had formal training in strictly service programs affecting almost any rank or grade, or informal in-service experience which may have cogent educational value. While educators are studying these problems and attempting to anticipate some of the more obvious cases, I think it would be folly to set up rigid policies, rules, and regulations too far in advance of the impact of real situations. Good judgment in appraising the situation and advising a pro-

spective student in his own interest is much to be preferred to prejudging these cases by minute regulations.

Two courses of action, however, suggest themselves as a means of handling fairly and equitably the problems of the student whose work was interrupted prior to his graduation: evaluate on a certification basis and in accord with established college practices the work which may have been done at another university under the auspices of its regular staff, provided it fits suitably into the student's major curriculum, and evaluate by comprehensive examinations, after the student enrolls to continue his program toward a degree, other "educational experience" which fits into his curriculum. Beyond that, a judicious combination of refresher work, "vestibule training" on a tutorial or group-supervision basis, and regular classwork can be expected to advance the student properly toward his bachelor's degree in engineering.

The veteran who was just ready to enter a college of engineering when he entered military service may provide a difficult problem if he is deficient in his mastery of such high-school subjects as mathematics, the basic sciences, and English. Adequate preparation for college has long been the responsibility of the secondary schools. If the veteran has become rusty in mathematics, physics, chemistry, and English in his interim-service between high school and college, he will need refresher training in those secondary-school areas of instruction. Who will do this job of refresher training and how it can be done with greatest effectiveness and appropriate dignity are questions that are still being discussed. Unquestionably the job must be done—and it should be done well.

The foregoing discussion of transitions to civilian engineering has tacitly assumed that the veteran's objective is an education for the profession of engineering rather than a training for service in the manual or mechanical trades embraced by the engineering fraternity.

Let us be clear on the distinction between these two objectives.

Ralph E. Flanders, past president of the American Society of the Mechanical Engineers, in "Content of the Mechanical Engineering Curriculum" in *Engineering Education*, has divided the work of engineers into seven different functions: maintenance, operating and processing, production methods, executive functions, designing, consulting, and research—

"The first three functions may be said to constitute the group of *technicians* in which perhaps a less rigorous preparation is permissible and a broader study of details is more desirable than in the case of the other types of functions. In this group it is essential that the student shall have a thorough knowledge of the mechanisms and processes in the broad field of mechanical engineering, that he shall have fair grounding in fundamentals, and that he shall know where to go for information (whether in textbooks, reference books, or current literature) on subjects with which he is concerned. . . . The fourth group, that of executives, is in a class by itself. Many engineering schools recognize this by setting up industrial engineering courses aimed especially at the training of the manager. It would be interesting to know how many of the executives who have come to the top through the engineering route had specialized training in management in their student courses—and how many of them took a purely engineering training. There is no question as to the large percentage of successful executives who had engineering training and. . . if it were possible to discover in advance which students in an engineering course were to become executives, it would be desirable to give those particular students a somewhat broader training, particularly in economics and English. . . .

"The designers, the consulting engineers, and the research men all require the most rigorous training in fundamentals, and it is highly doubtful

whether elaborate courses on the details of present practice are anywhere nearly so valuable as this thorough grounding. The present practice of the schools is almost invariably behind the developing present practices in the field, and the area that would have to be covered in a study of present practice would be so great, not knowing the field into which the graduate was going, that it would be impossible to save time for the fundamentals. The fundamentals are the essentials.

"But here, as well as in the training of the candidate for an executive position, a broadened training in such things as economics and English should be added to the deep and thorough training in fundamentals."*

Evidently there are different functions in engineering and in the associated manual or mechanical trades. Hence, there should properly be schools to educate men for the profession of engineering and other schools to train men for service in the associated trades.

Engineering schools may offer differentiated programs within the basic framework of engineering education, including the usual four-year program with emphasis on fundamentals and design; a parallel four-year program in which an emphasis on engineering problems of operation, production, and management may displace some of the time allotted otherwise to design; and a five-year program leading to the master's degree for men of superior analytical and inventive ability who desire to train themselves for more specialized technical work and research. For example, a curriculum in civil engineering includes a sequence of subject matters in three major stems: a humanistic-social stem extending through four years of the curriculum; a basic-sciences stem which lies primarily in the first two years of the curriculum; and an engineering-applications stem which integrates the other two stems and

*Flanders, Ralph E. "Content of the Mechanical Engineering Curriculum." *Engineering Education* 47: 803-805 (1940).

occupies largely the last two years of the program. If we are to "break the academic lock step" and to stimulate and develop individual initiative in engineering students, it is imperative that a reasonable choice of electives be provided. Instead of requiring every student of civil engineering, for example, to pursue precisely the same courses in the traditional subdivisions of hydraulic engineering, sanitary engineering, structural engineering, transportation engineering, and engineering for construction, it seems wise to reduce—by, say, one elective course through the senior year—the remaining work of the civil engineering professional courses to a "core of essentials" and to encourage individual or group student election of the remaining portion of the course.

In order that "capital may be available" in men and facilities to offer really strong electives, the choice must be pragmatic and effectively deliverable. Such electives in civil engineering at the Carnegie Institute of Technology might be hydraulic engineering, or structural engineering, or an individual project pursued under the immediate guidance of a staff member. It is toward high objectives of civil engineering education that we are continuing to direct our course rather than toward equally laudable objectives of mercenary science at one extreme and technician training at the other. This is in accord with the broad policies of the College, and also with the broad recommendations of the S.P.E.E. Committee on Engineering Education After the War, as set forth in their report in the May 1944 *Journal of Engineering Education*.

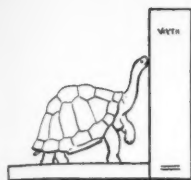
To be sure, as we look toward the emergence of a veteran from military service to civilian engineering service we anticipate many more problems than are directly related to previous preparation, ultimate objective, and the intervening educational program. Yes, there are problems of adjustment and readjustment which we can scrutinize under such magnification that a minor

emotional disturbance may appear to assume volcanic proportions. There will be problems of segregation, and integration, and special treatment, and rights and privileges—just to name a few. In looking toward the G.I.'s horizon and toward his transition from military to civilian service by way of the engineering colleges, I foresee a dawn of real opportunity for the veteran, the teacher, and the civilian student who was not privileged to serve in the Armed Forces. The teacher will be dealing with men—men who have answered the greatest call to patriotic service in all history. These men will have had training, discipline, and experience. They will, above all, realize the dangers of careless training and will be contemptuous of weakness and shoddy work of whatever kind. The teacher who can deal with men had better spend his energy on strengthening his program of instruction and on increasing his alertness to meet the situation that arises rather than, like a fuss-budget, to worry about a lot of problems that may arise only in his disturbed imagination.

By that I don't mean that we in the engineering colleges should not be prepared to help men choose a line of work, to advise them courageously to go elsewhere for subprofessional and trade-school training, to put them to work promptly and effectively at their proper level, and to help them to rise as rapidly as possible in the path leading to their chosen profession. In the welter of confusion which inevitably precedes the call to real service, we may be assured with Keith Thomas that

"The centuries of history
lend courage to the stormy days,
this winter of humanity
and cruel rigor of its ways;
and I look back along the plain
wherein our mighty sources lie,
while waiting for the spring again
and mountain paths that we may try."*

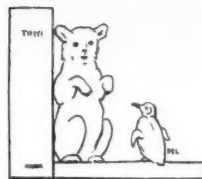
*Thomas, Keith. "In Autumn Read History." *Yale Review* 33: 120 (Autumn 1943). (Copyright 1943 by the *Yale Review*. Used by permission of the Editor.)



THE SCIENTIST'S BOOKSHELF

By M. GRAHAM NETTING

Curator of Herpetology, Carnegie Museum



THAT VANISHING EDEN: A NATURALIST'S FLORIDA By THOMAS BARBOUR. BOSTON: Little, Brown & Co. An Atlantic Monthly Press Book. 250 pp., 25 photographs. \$3.00. Carnegie Library call no. 570.9759 B23



It is always a pleasure to review a book which recalls to mind beautiful spots once visited, makes the nostrils twitch to remembered aromas, and causes the mouth to water for viands long untasted. It is doubly gratifying to do so when the author is both a respected mentor and a long-time friend. I can safely claim friendship without being accused of wishing to bask in reflected glory, for Tom Barbour's friends are legion, and as motley a crew as can be imagined—literally princes and paupers, world-famous statesmen, Cuban peons, cultured scholars, skillful woodsmen, renowned scientists, conches in Key West, and first families in Boston. There are places in Darien, or half a world away, where the best introduction to unlettered natives would be the portrait, facing page 136, of "T. B." curling a ringlet of hair about a massive finger, in the gesture familiar to everyone who has known him.

When such a man reminisces, and particularly about Florida, for which I share his affection without pretense of equal familiarity, need I apologize for being favorably biased? Whether he writes of Seminoles, northerners and hurricanes, forests and fire, David Fairchild's Kampong, ditches, beaches or lakes, Indian mounds, or the animals he knows so well, it is with the pas-

sionate zeal of a lover, yet without the blindness of amour. A scientist and a world traveler, he does not strain the credulity of his readers by awarding first honors to everything Floridian. He describes the behavior of Florida leaf butterflies, and then notes: "Time and again in India I have seen Killima, the most famous leaflike butterfly in the world, do the same stupid thing." He alludes to Sanibel Island's 450 species of shells, which make it a Mecca for malacologists, but notes that the distant Malabar Coast may have more. Such a conscientious global viewpoint strengthens his statements of local pre-eminence. For example, he tells us that "North Central Florida has more spectacular, indeed more incredible, springs than any other region of which I have ever heard."

A number of years ago, an unknown inquirer telephoned me for advice as to where he might go in Florida to take moving pictures of death-defying encounters with wild animals and dangerous Indians. I believe that he doubted either my sanity or my knowledge when I told him that none of the few remaining panthers was as inimical to a man afoot as some of the range cattle of the Kissimmee prairies, that the most hazardous encounters were those between hurtling cars and indolent cows on unfenced highways, and that the Indians were most ferocious-appearing when given too small a fee for posing for tourist snapshots. The land was once less effete, however, for Barbour quotes Commodore Munroe's account of having killed a fourteen-foot, eight-inch crocodile in 1886, in the

area of present-day Miami! Harking back to a still earlier period, he draws upon the writings of the great botanist-traveler William Bartram, who, in 1773 to 1778, found alligators so large and so numerous as to be truly terrifying—though not so large, I think, as he estimated when their roars reverberated in his ears. Not content with this, the author includes a chapter on the prehistoric life of Florida—doglike creatures as big as grizzly bears, diminutive horses, ten-foot rhinos, and thirty-foot sloths.

These pages glorify a variety of victuals, ranging from the Hopping John to green turtle "shell" pie, which hospitable Florida offers. In retrospect, however, I find cause to chide "T. B.," for I recall no slightest reference to the "hush-puppy," that incomparable, corn-meat delicacy, without which golden-browed mullet is incomplete.

Much of Florida's once virgin landscape has been despoiled, but the geographer can still revel in vowel-replete names, happily persistent. Apalachicola, Caloosahatchee, Homosassa, Immokalee, Kalachuche, Oklawaha, Okeechobee—they are a rich and colorful heritage from the Indian tribes of Florida, whom we have repaid so shabbily. Loxahatchee, meaning "river of lies," commemorates an agreement we dishonored.

Barbour regrets that Bartram left no word picture of the piney woods; I regret that many of the hammocks and waterlands have been devastated since Barbour's early visits, but in this case they are, at least, immortalized in his gusty prose. Fortunately, some of these blighted areas may yet be restored to near-pristine grandeur, and become an attraction more enduring and soul-satisfying than "peeled bathing beauties" and race tracks. Too practical a conservationist to believe that promoters can be converted by anecdotal flash backs, however graphic, the author threatens them with salt in their water supply. This argument against ill-advised, short-sighted swamp "re-

clamation" projects is timely, for some Miami wells are already spewing forth salt water, to the dismay of local realtors. Barbour ends with a vision of the Florida that could be, with Miami becoming a great cultural metropolis and "the air-travel center of the western world." To forward this dream he pleads for prompt establishment of the proposed Everglades National Park, in order to re-establish fresh-water pressure and to provide frost protection; for enhanced support for the University of Miami; and for creation of a great aquarium, a marine biological station, and a tropical research center. What can be accomplished rapidly, by even a few determined souls, is indicated by the Fairchild Tropical Garden, less than six years old, yet already harboring over three hundred species of palms alone, and boasting the world's only Palm Products Museum.

The omission of a map of the places discussed is, I think, the most serious fault in this book. Furthermore, although addressed to the casual visitor rather than to the scientific inquirer, Latin names appear frequently, often unchaperoned by English equivalents. This does not shock the reviewer, but may annoy some readers. Chapter II impresses me as being too heavily unrelieved Bartram, for those not already enamoured of Florida. Certain tales, for instance the account of the acquirement of the Gilchrist County fossil dig, lack interesting details—possibly embellishments—with which they are told when naturalists foregather.

There are some, of whom I am one, who pick up every copy of the *Atlantic Monthly* in the hope that it may contain an essay by Tom Barbour, welcome prognostication that he has embarked upon another book. His admirers may deplore the brevity of the present volume, as contrasted with his earlier *Naturalist at Large*. Once it has been read and reread, however, we can only hope for more volumes from his talented pen, while we lend our support to the causes which he has championed.



"THE PLAY'S THE THING"

Reviewing the Little Theater Production of
"The Old Maid"



By AUSTIN WRIGHT

Associate Professor of English, Carnegie Institute of Technology



EDITH WHARTON published her short novel, *The Old Maid*, in 1924 as one of a series of four sketches entitled *Old New York*. At least one critic impulsively ranked it with *Ethan Frome*, and no doubt lived to

repent his hasty judgment. The book tells the story of two cousins, Delia and Charlotte Lovell, and the illegitimate daughter that Charlotte has born to Clement Spender, the charming but irresponsible and hence rejected suitor of the practical Delia. Charlotte has kept her secret well, and though when her child was born she had had to leave it as a foundling with her own old Negro nurse, she has been able partly to satisfy her natural longings by running a sort of day nursery for little Tina and other underprivileged children. But when she is offered marriage by wealthy Joseph Ralston, a member of one of the leading families of New York, she is torn between love for him and love for Tina, whom she fears to lose forever through such a marriage. In desperation she reveals her secret to Delia, for some years placidly married to Joseph's prim cousin James Ralston, begging her to intercede with Joseph and, without disclosing the parentage of Tina, persuade him to agree that Charlotte may continue to care for her "paupers" after marriage. Delia, profoundly moved by the revelation that Tina is the daughter of the man whom she has never been

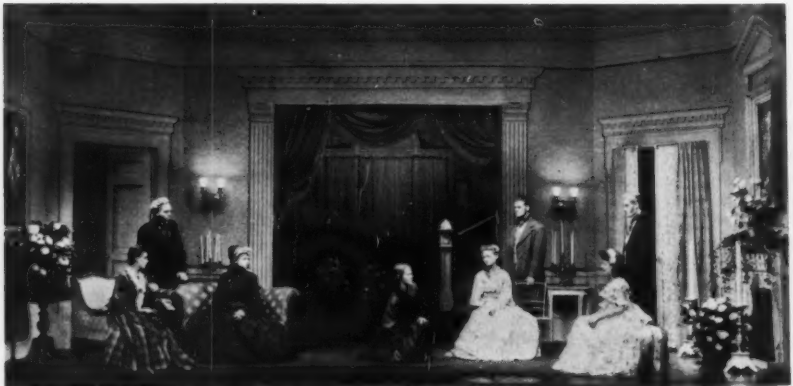
able to forget, promises only to do what she thinks best. By revealing to Joseph that Charlotte, whose father had died of consumption, is suffering from hemorrhages, she prevents the marriage; then she persuades her own Ralston husband to establish the penniless Charlotte and Tina in a house of their own. When her husband is killed in an accident a few years later Delia takes Charlotte and her little girl to live with her, and the child learns to call Delia "Mamma" and Charlotte "Aunt Charlotte" in imitation of the Ralston children. Step by step Delia wins the love of Clement Spender's child away from Charlotte, who looks on in growing bitterness. Eventually Delia legally adopts Tina, with Charlotte's acquiescence, in order that the girl may contract the successful marriage which the Ralston name and a share of Delia's fortune will make possible. At the end Charlotte, though happy in Tina's happiness, feels that Delia has deliberately and systematically supplanted her in her daughter's affections; and Delia, conscience-stricken at last as she realizes the depth of Charlotte's misery, does what she can to tighten the bond between Tina and the heartbroken mother without disclosing the truth about their relationship.

This story Miss Zoe Akins adapted for the stage, and it was produced on Broadway early in 1935, with Judith Anderson as Delia and Helen Menken as Charlotte. On the whole Miss Akins performed faithfully and skillfully the difficult task of adaptation, transferring many speeches intact, retaining the original characterizations, and preserving the period flavor of mid-nineteenth-

century New York which is one of the chief charms of Mrs. Wharton's book. She added, however, several scenes not depicted by Mrs. Wharton—particularly a useful opening scene presenting a conversation between the Lovell cousins on the day of Delia's marriage to James Ralston, and establishing clearly the relations of Delia, Charlotte, and Clem Spender to each other. She also emphasized many things which the other had been content merely to suggest, and thus supplied clearer motivations at the risk of sacrificing some of Mrs. Wharton's subtlety. For instance, in the novel Charlotte's final outburst of resentment against Delia comes as something of a surprise, whereas on the stage her increasing torment and hatred are kept clearly before the eyes of the audience. Miss Akins found it necessary to build up the roles of Joseph Ralston and of Dr. Lanskell, the family physician who had shared Charlotte's secret from the first. She also created speaking parts for several persons merely alluded to in the novel—Mrs. Mingott, the Parisian aunt of James and Joseph Ralston; Dee Ralston, Delia's daughter; and Lanning Halsey, Tina's fiancé. She made James and Joseph brothers rather than cousins and young Dee Ralston an only child, whereas in the original there was also a son.

In the play there is open conflict between Charlotte and Tina, whereas Mrs. Wharton had simply had Tina look with tolerant amusement upon Charlotte's old-maid fussiness; further, the Wharton Charlotte is severe with Tina chiefly so that the girl will never suspect the truth about her birth, but the Akins Charlotte is much more harsh and even needlessly unkind. Among changes in plot the most significant is that, apparently in order that Delia's character may be blackened, in Miss Akins' version the story about Charlotte's hemorrhages is a lie, whereas, in Mrs. Wharton's it was true. Even so, Delia's crime is extenuated by the fact that both Charlotte and Dr. Lanskell immediately condone it, though with regret. If Delia had shattered Charlotte's chance for happiness and then *concealed* what she had done, her guilt would indeed have been heavy. As it is, her crime rests not in her lie itself but in the fact that when Joseph is on the point of yielding to his fiancée's strange request and needs only a touch of encouragement from Delia, she enviously shrinks from the prospect of such a happy solution for Charlotte and tells the lie when it is not necessary. This deception neither Charlotte nor Dr. Lanskell ever apprehends.

The stage version of *The Old Maid* en-



STUDENT ACTORS IN A SCENE FROM "THE OLD MAID"

joyed a greater success than had been predicted by the critics. It ran for 190 performances, drawing a large share of its support from women. Matinees were invariably jammed. Then in May 1935 announcement was made that *The Old Maid* had been awarded the Pulitzer Prize in drama. At once pandemonium broke out among the critics. That was a brawl, me hearties! For a good old-fashioned exchange of billingsgate, give me a clash among intellectuals every time. Less than two hours after the announcement, Clayton Hamilton made a radio broadcast excoriating the committee of award, and he was supported promptly by such pundits as George Jean Nathan and John Mason Brown. The charges were that *The Old Maid*, being an adaptation, did not meet the Pulitzer stipulation that the prize must go to an original play; that it was by no means the "best" play of a season which included *The Children's Hour*, *Awake and Sing*, *Accent on Youth*, *The Petrified Forest*, and *Valley Forge*; and above all, that it certainly did not deserve to be called the play which best represented, in Pulitzer's phrase, "the educational value and power of the stage." Indeed, the only persons who seemed genuinely happy about the award were Miss Akins herself and two gentlemen of the theater world who by gambling \$15 each on *The Old Maid* collected a cool \$300 apiece for their prescience.

Looking upon this controversy with the detachment made possible by the lapse of nine years, we can remark with Sir Roger de Coverley that there is much to be said on both sides. Some of the critics were a little shrill in their denunciations, but it will probably be conceded by most people that *The Old Maid* is not a great play. Seen once, it leaves a satisfactory impression; but if one sees a performance, then reads the play, and then witnesses a second performance within a week, its flaws become clear. It does not bear up too well under the microscope. There is a flood of talk, and little action. The

tempo is so slow that no matter how skillful the direction, the evening seems long. Attention centers entirely upon two characters, and though these two are alive and vivid, they are not sufficiently so to sustain interest almost unaided. Finally, the protracted struggle for possession of Tina, who is not depicted as being particularly worthy of being struggled for, is so sentimentalized and so agonized over that it becomes tiresome. I could not have endured it if Tina had asked her mamma just once more to come up and say good-night to her.

The Old Maid was given a spirited and colorful production by the Department of Drama at Tech as the first offering of the 1944-45 season. With this performance William Beyer made his debut as a director in the Little Theater, though as a playwriting major in the Department of Drama he had wide experience there twenty years ago. In recent years he has been in Hollywood with Audio Productions as a film writer and dialogue director; previously he had spent four years with the Federal Theater as a producer and in an editorial capacity. In his direction of *The Old Maid* Mr. Beyer attained a distinguished success, and his achievement seems especially praiseworthy in view of the fact that he presumably had had no previous acquaintance with his student-actors. He succeeded in making audiences overlook the comparative absence of action, and his timing was perfect. True, there were occasional unfortunate moments—though audience laughter at the wrong points is not always to be accepted as a just criticism, this time I am inclined to think the audience was right—but it is only fair to say that such moments were due in large part to flaws in the play and cannot be charged to either the direction or the acting. Mr. Beyer was forced to eliminate one scene involving several small children in addition to little Tina, but I am still wondering why he deleted one interesting bit of dialogue between Delia and Charlotte at the beginning of their

important scene in Act II. The sets and costumes, so important in any period piece of the type of *The Old Maid*, were impeccable as usual. The Department of Drama always handles Victorian backgrounds, costumes, and accessories in a way to delight the eye.

Not only is *The Old Maid* chiefly a woman's play in audience appeal; it is a woman's play with respect to acting parts. More than that, it is a play with splendid roles for just two actresses, and for the other players only minor parts ranging from secondary roles down to mere bits. There are but a few minutes when neither Delia nor Charlotte is on the stage; both are on nearly half of the time; and throughout more than one-fourth of the evening these two occupy the stage alone. It is evident that if a production of *The Old Maid* is to be successful, the roles of Delia and Charlotte must be well handled, and at Tech the two actresses who played Delia and the two who played Charlotte gave skillful, conscientious performances. It is my opinion that in the casting of these roles the most fortunate selection was that of the first Delia, who portrayed perfectly the lovely but ruthless and fully self-possessed woman whose intensity of feeling is always subjected to the domination of her intellect. The second Delia, a talented actress, gave a highly competent performance, but she seemed less at home in the role than in many others which she has played at Tech. Possibly the explanation is simply that I have become accustomed to seeing her in humorous parts. Both actresses collaborated skillfully with the director to provide impressive endings for Act II and Act III, when Delia, left alone with thoughts which the audience can guess, lets her embroidery rest idly in her hands as she looks up meditatively from her work and the curtain slowly falls. Both Charlottes struck me as too engagingly young and too provocatively pretty for the role. Even in the early scenes, should not Charlotte be portrayed as a rather dowdy-looking

poor relation of the type of whom people used to say, "She was born to spinsterhood"? An attempt was made to have her appear older and somewhat faded and lustreless in the later scenes, but it was none too successful. This is not to say, however, that Charlotte was not competently played. In each cast the actress proved herself equal to the exciting demands of the role and conveyed Charlotte's increasing loneliness and sense of frustration without sentimentalizing her unduly. My friend Arbuthnot, who saw the second cast, complained that some of the dialogue between Delia and Charlotte was not fully audible, and though I was not aware of this defect I mention this criticism because the point involved is such a vital one.

Miss Akins has created in Mrs. Mingott a personage who provides a choice though small role for a character actress, and both young women who represented her made her an amusingly hearty and vivacious "grande dame." Arbuthnot, who seldom speaks in superlatives, was eloquent in praise of the Mrs. Mingott whom he saw in the second cast, and I believe that the first Mrs. Mingott was at least equally effective—and perhaps even better suited to the role physically. The unhappy Joseph Ralston is shabbily treated by the other characters in *The Old Maid* and given some pompous and almost ridiculous lines by the author; hence it could not be expected that he would be a favorite with the audience. The role was played with intelligence, but neither the actor nor the director was able to give it the breath of life which the author has neglected to provide. Dr. Lanscell was solid and dependable throughout, and he handled particularly well his brief scene with Delia where she reveals what she has done about Charlotte's projected marriage.

Tina, whom Miss Akins has made into a petulant flibbertigibbet looking for a spanking, was played in the first cast as a peaches-and-cream blonde of a rather high degree of sophistication,

in the second as a brunette who because of certain mannerisms seemed more childish and gauche than she is supposed to be. The role of Dee is not an enviable one—brief and rather sugary, and involving one scene which borders on the absurd. In this scene the second Dee in particular seemed to suffer from an embarrassed self-consciousness which could not be attributed entirely to the circumstances of the situation being portrayed. Lanning Halsey was played with a mixture of insouciance and sincerity which was highly pleasing, and the nine-year-old actress who played the thankless role of the child Tina was splendid. Incidentally, I cannot forgive Miss Akins for writing the absurd scene in which little Tina, questioned by Mrs. Mingott, is helplessly unable to give her full name. Would not Charlotte have been sufficiently farsighted to realize that this situation would be among the first which the growing child would be forced to face?

There are two moments in *The Old Maid* which, oddly enough, had remained vivid in my memory throughout the nine years which had elapsed since I had first seen the play and to which consequently I looked forward in this new production. The fact that the Tech players handled both with an impressiveness that forestalled any sense of anticlimax or disappointment is in itself something of a tribute to their skill. The first of these is Dr. Lanskill's grave rebuke to Delia: "I think it's a sacrilegious thing to lay so much as a finger on another person's destiny." The second is Delia's melancholy, half-frightened speech to Dr. Lanskill as she thinks of her life with Charlotte after Tina's wedding: "From tomorrow evening on, till death comes for one of us, we'll be sitting here alone together—beside the same lamp, in an empty house—with God knows what thoughts to keep us company." Memories, as Dr. Lanskill well says, do indeed "have a way of coming to the family feasts—whether they are invited or not."

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*THOMAS J. GALLAGHER
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